



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,705	07/15/2003	Masahiro Kato	8048-1029	4913

466 7590 10/16/2007
YOUNG & THOMPSON
745 SOUTH 23RD STREET
2ND FLOOR
ARLINGTON, VA 22202

EXAMINER

DANIELSEN, NATHAN ANDREW

ART UNIT	PAPER NUMBER
----------	--------------

2627

MAIL DATE	DELIVERY MODE
-----------	---------------

10/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/618,705

Applicant(s)

KATO ET AL.

Examiner

Nathan Danielsen

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-13 is/are pending in the application.
- 4a) Of the above claim(s) 3 and 8-13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2627

DETAILED ACTION

1. Claims 1-4 and 6-13 are pending. Claims 3 and 8-13 have been withdrawn in response to applicant's election filed 08 January 2007. Claim 5 has been canceled in applicant's amendment filed 14 August 2007.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Kabayama et al (US Patent Application Publication 2003/0210084; hereinafter Kabayama).

4. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Regarding claims 1 and 7, Kabayama discloses an information recording apparatus (and associated information recording method) comprising:

a light source which emits a recording light for information recording (element 13 in figure 1);

a recording waveform data generating unit which generates recording waveform data which is predetermined digital data corresponding to an input recording signal (elements 1-10 and the combination of signals a, b, and c in figure 1);

a D/A converting unit which D/A-converts the recording waveform data to generate a driving pulse signal (elements 4 and 5 in figure 1; where input pulse a is a digital pulse and the output is an analog representation of the input pulse having transients superposed thereon); and

Art Unit: 2627

a driving unit which drives the light source to emit the recording light based on the driving pulse signal (element 12 in combination with elements 1-10), wherein the recording waveform data is determined in accordance with characteristics of the light source, the driving unit and a combination thereof (inherent in the circuit of figure 1 such that the waveform of figure 2(7) can be obtained from the input waveform of figure 2(1)),

wherein the recording waveform data includes a level for suppressing an overshoot and/or an undershoot at a position corresponding to a position at which a waveform of the recording light emitted from the light source forms the overshoot and/or the undershoot so that the recording waveform signal data is corrected to suppress the overshoot and/or the undershoot at the position at which the light waveform emitted by the light source has the overshoot and/or undershoot (signals b and c in figure 1 enabling figure 2(7) to be similar to figure 2(1)).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kabayama, in view of Seo (European Patent Application Publication 1 061 509).

Regarding claims 2 and 4, Hoshino discloses everything claimed, as applied to claim 1.

However, Hoshino fails to disclose the details of the recording waveform data generating unit or the functionality thereof.

In the same field of endeavor, Seo discloses where the recording waveform data generating unit comprises:

Art Unit: 2627

a unit which generates a recording strategy signal based on the recording signal and strategy information (§ 123);

a storing unit which stores predetermined waveform data determined in accordance with the characteristics of the light source, the driving unit and the combination thereof, for pulse waveforms of plural pulse widths (power table storing units 504 and 508 and § 123); and

a generating unit which obtains the waveform data corresponding to the pulse waveform forming the strategy signal from the storing unit and generates the recording waveform data (§§ 119-123),

wherein the storing unit stores the waveform data for each of a recording power which is a power of a recording light emitted from the light source in recording, and the generating unit refers to the storing unit according to a recording power to be utilized and generates the recording waveform data (§§ 102-106).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Hoshino with that of Seo for the purpose of enabling accurate recording control by updating the light output control data for the power setting values as the output characteristics of a laser diode change (§ 131).

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kabayama, in view of Masaki et al (US Patent 5,732,055; hereinafter Masaki).

Regarding claim 6, Kabayama discloses everything claimed, as applied to claim 1. However, Kabayama fails to disclose means for compensating for level tilt.

In the same field of endeavor, Masaki discloses where the recording waveform data has a level for canceling a level tilt in a case that a waveform of a recording light emitted from the light source has the level tilt (col. 26, lines 16-46).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the apparatus of Kabayama with that of Masaki, for the purpose of efficiently performing a light emission adjustment without exerting a burden on a laser diode (col. 2, lines 59-62).

Art Unit: 2627

Response to Arguments

8. Applicant's arguments, see pages 11-13, filed 14 August 2007, with respect to the rejection(s) of claim(s) 1, 2, 4, 6, and 7 under 35 USC § 102(b) have been fully considered and are persuasive.

Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kabayama, Seo, and Masaki.

Closing Remarks/Comments

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Danielsen whose telephone number is (571) 272-4248. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathan Danielsen
10/10/2007

/William Korzuch/
SPE, Art Unit 2627